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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,684	04/13/2004	Kyu-yeob Jeong	1572.1309	2991

21171 7590 07/13/2006

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EXAMINER

WRIGHT, INGRID D

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,684

Applicant(s)

JEONG, KYU-YEOB

Examiner

Ingrid Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-30 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: 6 Attachments.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 2-5,8-13,17-26 & 28 are withdrawn in view of the newly discovered reference(s) to Scholder et al. US 5457608. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Scholder et al. US 5457608. Note: See attached fig. 1 & 3 of Scholder et al. for elements representing claimed limitations in the instant application.

With respect to claim 1, Scholder et al. teaches a computer (see, col. 1, lines 6-14 of Scholder et al.), including a casing (see, col. 2, lines 39-49 of Scholder et al.) forming an outer appearance and having a main board attaching surface (14) to which a main board (12) is attached, comprising: a main board supporting unit (see, notation on attached fig. 1 of Scholder et al.) provided on the main board attaching surface (14) to support the main board (12); a holder (40) having a lock (16) slidably combined to the main board attaching surface (14), and preventing the main board (12) from moving, additional locks (70,72) and a guide (see, col. 3, lines 16-26 of Scholder et al.) formed on the main board attaching surface (14) at a position spaced from the main board (12) to guide the holder (40), the lock (16) being locked to the guide (see, col. 3, lines 16-26 of Scholder et al.).

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With respect to claim 8, Scholder et al. teaches wherein the holder (40) comprises a main body (see, main body of (40)) having the locks (16), additional locks (70,72) and grips (43,44) respectively formed in opposite sides thereof.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 & 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholder et al.

US 5457608.

With respect to claim 2, in regards to all the limitations of claim 1 above, Scholder et al. teaches wherein the lock (see, multi tracks of (16)) is plural in number and the holder (40) comprises: a main body (see, body of holder (40)) having the locks (see, multi tracks of (16)) slidably received in a the holder (40) formed respectively in opposite sides thereof, additional locks (70,72), a pair of first grips (see, notation on attached fig. 1 of Scholder et al.) extended from each the holder (40) connected to the lock (16) & additional locks (70,72), a pair of additional locks (70,72) forced to move toward and away from each other; a holding part (52) provided at an end of the main body (see, main body of holder (40)) between the pair of first grips (42,44) to hold one edge of the main board (12); and an elongated guide hole (see, col. 23, lines 16-26 of Scholder et al.) formed on the main body (see, main body of (40)) between the holding part (52), but is silent as to a an explicit teaching of a second grip.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a second grip, in the invention of Scholder et al., in order to provide an alternate means of urging locking members toward a main board for attachment within a housing. Note: Also, rear wall of holding part (40) has a horizontal flat planar surface, which can be gripped to push the main body to slide.

With respect to claims 9, in regards to all the limitations of claim 1 & 8 above, Scholder teaches a pair of first grips (42,44) and additional locks (70,72) which are allowed to move toward and away from each other, but is silent as to the grips extended upwardly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend the grips upwardly, over the configuration of Scholder et al., in order to provide an alternate method of securing means for a main board within a chassis.

With respect to claim 10, Scholder teaches a holding part (52) provided at an end of the main body (see, body of (40)) between the pair of first grips (42,44), which assists in holding one edge of the main board (12).

With respect to claims 11, Scholder et al. teaches a grip (42,44) on an upper surface of main body (see, body of (40)) and locks (16) sliding in elongated hole (46), but is silent as to an explicit teaching of a second grip. Note:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a second grip, in the invention of Scholder et al., in order to provide an alternate means of urging

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locking members toward a main board for attachment within a housing. Note: Also, rear wall of holding part (40) has a horizontal flat planar surface, which can be gripped to push the main body to slide.

-4. Claims 3-5, 12 & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholder et al. US 5457608 in view of Lin et al. 6870731 B2. Note: See Note: See attached fig. 1 & 6 of Lin et al. for elements representing claimed limitations in the instant application.

With respect to claim 3, in regards to all the limitations of claim 1 & 2 above, Scholder et al. teaches wherein the guide (see, notation on attached fig. 1 of Scholder et al.) comprises: a pair of hooks (see, notation on attached fig. 1 of Scholder et al.), holes (48) & guide holes (see, col. 3, lines 16-26 of Scholder et al.) which secures the locks (16) of the holder (40); and a guiding projection (see, notation attached fig. 1 of Scholder et al.) protruding from the main board attaching surface (14) and teaches projections (28) from locks (16) which protrude from the locks (16) and are inserted into guide holes (see, col. 3, lines 16-26 of Scholder et al.), thereby allowing the guide the holder (40) to be slidably attached to the main board attaching surface (14) an elongated holes (46) and an additional elongated guide hole (see, notation on attached fig. 1 of Scholder et al.), but is silent as to latches and holes on the bottom of the holder.

Lin et al. teaches a lock member (20), comprising latches (22), which engages openings (45), in order to secure a panel (40) to support panel (30) of a computer chassis (see, col. 3, lines 47-54 of Lin et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the latches of Lin et al., in the invention of Scholder et al., in order to provide an enhanced securing means for the holder of Scholder et al. within the interior of the chassis.

With respect to claim 4, Scholder et al. teaches a holder (40), but is silent as to latches.

Lin et al. teaches wherein each latches (22) is formed by bending the support panel (30), which functions as a main board attaching surface, upwardly to accommodate the edge of the main body (see, main body of (20) and the pairs of latches (22) arranged along a length direction of the locking member (20), in order to secure a panel (40) to support panel (30) of a computer chassis (see, col. 3, lines 47-54 of Lin et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize latches of Lin et al., in the invention of Scholder et al., in order to provide an enhanced securing means for the holder of Scholder et al. within the interior of the chassis.

With respect to claims 5,13, respectfully, Scholder et al. teaches wherein the guiding projection (see, notation on attached fig. 2 of Scholder et al.) comprises an extension (see, notation on attached fig. 1 of Scholder et al.) protruding from the main board attaching surface (see, notation on attached fig. 1 of Scholder et al.), and an insert (see, notation on attached fig. 1 of Scholder et al.) extended from the extension (see, notation on attached fig. 1 of Scholder et al.), which has a larger diameter than that of the extension (see, notation on attached fig. 1 of Scholder et al.), and the elongated guide hole (see, notation on attached fig. 1 of Scholder et al.) includes an insertion section, but is silent as to specifically a moving section.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a moving section over, the configuration of Scholder et al., in order to provide an alternate configuration of allowing a lock to be slidably attached to a circuit board in a computer chassis.

With respect to claim 12, in regards to all the limitations of claim Scholder et al. teaches the guide (see, col. 3, lines 16-26 of Scholder et al.) and a pair hooks (28) being positioned apart from each other, which allows the holder (40) to be locked to the main board attaching surface (14), but is silent as to latches.

Lin et al. teaches a lock member (20), comprising latches (22), which engages openings (45), in order to secure a panel (40) to support panel (30) of a computer chassis (see, col. 3, lines 47-54 of Lin et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the latches of Lin et al., in the invention of Scholder et al., in order to provide an enhanced securing means for the holder of Scholder et al. within the interior of the chassis.

5. Claims 16-21 & 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholder et al. US 5457608 in view of Cheng et al. US 6813165 B2. Note: See attached fig. 7 of Cheng et al. for elements representing claimed limitations in the instant application.

With respect to claim 16, Scholder et al. teaches a computer casing (see, col. 1, lines 1-4 of Scholder et al.), having a main board attaching surface (14) to which a main board (12) is attached by a user, comprising: a holder (40) having a lock (16), combined to the main board attaching surface (14) by the user, to thereby prevent the main board (12) from becoming unintentionally detached; and a main board supporting unit comprising a guide (see, col. 3, lines 16-26 of Scholder et al.) formed on the main board attaching surface (14) at a position which is spaced from the main board (12), to guide the holder (40), until the lock (16) is locked to the guide (see, col. 3, lines 16-26 of Scholder et al.), but is silent as to an initial and an holding position.

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Cheng et al. teaches an initial position and a holding position of a motherboard (3) via a positioning member (11), for permitting movement and a securing means of a motherboard (3), on an interior surface of a computer housing (see, Abstract of Cheng et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize, the positioning member of Cheng et al., in the invention of Scholder et al., in order to allow the board of Scholder to be adjusted for optimum placement in the housing.

With respect to claim 17, Scholder et al. teaches wherein the lock (16) is plural in number and the holder (40) comprises a main body (see, body of (40)) having the locks (16) respectively formed in opposite sides thereof.

With respect to claim 18, Scholder et al. teaches a pair of first grips (42,44) and extended from each lock (16), which forces the pair of locks to move toward and away from each other, but is silent as to locks being extended upwardly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend the grips upwardly, over the extended configuration of Scholder et al., in order to provide an alternate method of securing means for a main board within a chassis.

With respect to claim 19, Scholder et al. teaches a holding part (52) provided at an end of the main body (see, body of (40)) between the pair of first grips (42,44), being attached to one a holding part (52), assists in holding one edge of the main board (12)

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With respect to claim 20, Scholder et al. teaches a holding part (52), and a main body (see body of (40)), and grips (42,44), which protrudes from an upper surface of the main body at a position which is opposite to the holding part (52) and locks (16) which slide in elongated hole (46), but is silent as to a second grip.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a second grip, in the invention of Scholder et al., in order to provide an alternate means of urging locking members toward a main board for attachment within a housing.

With respect to claim 21, Scholder et al. teaches an elongated guide hole (46), but is silent as to an explicit teaching of second first grip.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a second grip, in the invention of Scholder et al., in order to provide an alternate means of urging locking members toward a main board for attachment within a housing. Note: Also, rear wall of holding part (40) has a horizontal flat planar surface which can be gripped to push the main body to slide.

Regarding the method claim 30, the method steps recited in the claims are inherently necessitated by the device structure as taught by Swindler. Scholder et al. disclosed (fig. 1) a main board (12) attached onto a main board attaching surface (14) of a computer (see, col. 1, lines 6-14 of Scholder et al.); the main board (12) placed on the main board attaching surface (14) in an initial position; the main board (12) slid from the initial position to a holding position; and the main board (12) locked in place.

6. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholder et al. US 5457608 in view of Cheng et al. US 6813165 B2, further in view of Lin et al. 6870731 B2.

With respect to claim 22 respectively, Scholder et al. as modified by Cheng et al., teaches wherein the guide (see, notations on attached fig. 1 of Scholder et al.) comprise a pair hooks (28), being positioned apart from each other, allows the holder to be locked to the main board attaching surface (see, notation on attached fig. 1 of Scholder et al.), but is silent as latches.

Lin et al. teaches a lock member (20), comprising latches (22), which engages openings (45), in order to secure a panel (40) to support panel (30) of a computer chassis (see, col. 3, lines 47-54 of Lin et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the latches of Lin et al., in the invention of Scholder et al. as modified by Cheng et al., in order to provide an enhanced securing means for the holder of Scholder et al. within the interior of the chassis.

With respect to claim 23, Scholder et al. as modified by Cheng et al., teaches a guiding projection (see, notation on attached fig. 1 of Scholder et al.) protruding from the main board attaching surface (see, notation on attached fig. 1 of Scholder et al.), and teaches a pair of hooks which are inserted into an elongated hole (see, notation on attached fig. 1 of Scholder et al.), but is silent as to pair of latches.

Lin et al. teaches a lock member (20), comprising latches (22), which engages openings (45), in order to secure a panel (40) to support panel (30) of a computer chassis (see, col. 3, lines 47-54 of Lin et al.).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the latches of Lin et al., in the invention of Scholder et al. as modified Cheng et al., in order to provide an enhanced securing means for the holder of Scholder et al. within the interior of the chassis.

With respect to claim 24, Scholder et al. as modified by Cheng et al., teaches a holder (40), but is silent as to latches.

Lin et al. teaches wherein each latches (22) is formed by bending the support panel (30), which functions as a main board attaching surface, upwardly to accommodate the edge of the main body (see, main body of (20) and the pairs of latches (22) arranged along a length direction of the locking member (20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the latches of Lin et al., in the invention of Scholder et al. as modified by Cheng et al., in order to provide an enhanced securing means of a circuit board or panel to a interior surface of a chassis or enclosure.

With respect to claims 25 & 26, Scholder et al. teaches wherein the guiding projection (see, notation on attached fig. 2 of Scholder et al.) comprises an extension (see, notation on attached fig. 1 of Scholder et al.) protruding from the main board attaching surface (see, notation on attached fig. 1 of Scholder et al.), and an insert (see, notation on attached fig. 1 of Scholder et al.) extended from the extension (see, notation on attached fig. 1 of Scholder et al.), which has a larger diameter than that of the extension (see, notation on attached fig. 1 of Scholder et al.), and the elongated guide hole (see, notation on attached fig. 1 of Scholder et al.) comprising an insertion section, but is silent as to specifically a moving section.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a moving section over, the configuration of Scholder et al., in order to provide an alternate configuration of allowing a lock to be slidably attached to a circuit board in a computer chassis.

7. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholder et al. US 5457608 in view of Cheng et al. US 6813165 B2, further in view of Lin et al. US 6870731 B2 & Perez et al. US 6385051 B1. Note: See notations on attached fig. 3 & 6 of Perez et al. for elements representing claimed limitations in the instant application.

With respect to claims 27, Scholder et al., as modified by Cheng et al. & Lin et al., a holder (40) teaches, but is silent as to a combining unit.

Perez et al. teaches a combining unit (see, notation on attached fig. 1 of Perez et al.) to attach a main board (14) to the main board attaching surface (bottom chassis wall (16), wherein the combining unit includes: at least one boss hole (see, notation on attached fig. 1 of Perez et al.) formed on the main board (14); and at least one boss (36) protruding from the main board attaching surface (16) and inserted into the boss hole (see, notation on attached fig. 1 of Perez et al.), for mounting a main board above a bottom wall of a chassis (16) (see, col. 3, lines 43-49 of Perez et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the combining unit of Perez et al., in the invention of Scholder et al. as modified by Cheng et al. & Lin et al., for mounting a main board above a bottom wall of a chassis (16) (see, col. 3, lines 43-49 of Perez et al.).

With respect to claim 28, Perez et al. teaches (see, fig. 1,3) a column (48) protruding from a main board attaching surface (16), a head (52) having a larger diameter than that of a column (48), and a recession (50) circumferentially formed between the column (48) and the head (52), and the boss hole (see, notation on attached fig. 6 of Perez) includes: a broad section having a larger width than the diameter of the head (52) of the boss (36), and a narrow section, having a smaller width than the diameter of the broad section, which communicates with the broad section (see, col. 3, lines 43-58).

With respect to claims 29 respectfully, Perez et al. teaches (see, fig. 1,3) a column (48) protruding from a main board attaching surface (16), a head (52) having a larger diameter than that of a column (48), and a recession (50) circumferentially formed between the column (48) and the head (52), and the boss hole (see, notation on attached fig. 6 of Perez) includes: a broad section having a larger width than the diameter of the head (52) of the boss (36), and a narrow section, having a smaller width than the diameter of the broad section, which communicates with the broad section (see, col. 3, lines 43-58).

8. Claims 6, 7, 14 & 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholder et al. US 5457608 in view of Perez et al. US 6385051 B1. Note: See notations on attached fig. 3 & 6 of Perez et al. for elements representing claimed limitations in the instant application.

With respect to claim 6, Scholder et al. teaches a holder (40), but is silent as to a combining unit.

Perez et al. teaches a combining unit (see, notation on attached fig. 1 of Perez et al.) to attach a main board (14) to the main board attaching surface (see, notation on attached fig. 1 of Perez et al.), wherein the combining unit includes: at least one boss hole (see, notation on attached fig. 1 of Perez et al.) formed

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on the main board (see, notation on attached fig. 1 of Perez et al.); and at least one boss (36) protruding from the main board attaching surface (14) and inserted into the boss hole (see, notation on attached fig. 1 of Perez et al.), for mounting a main board above a bottom wall of a chassis (16) (see, col. 3, lines 43-49 of Perez et al.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the combining unit of Perez et al., in the invention of Scholder et al., for mounting a main board above a bottom wall of a chassis (16) (see, col. 3, lines 43-49 of Perez et al.).

With respect to claims 7, 14 & 15, Perez et al. teaches (see, fig. 1,3) a column (48) protruding from a main board attaching surface (16), a head (52) having a larger diameter than that of a column (48), and a recession (50) circumferentially formed between the column (48) and the head (52), and the boss hole (see, notation on attached fig. 6 of Perez) includes: a broad section having a larger width than the diameter of the head (52) of the boss (36), and a narrow section, having a smaller width than the diameter of the broad section, which communicates with the broad section (see, col. 3, lines 43-58).

Response to Arguments

9. Applicant's arguments, filed 3/27/06, have been fully considered, but are moot in view of the new grounds of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Le et al. US 6813161 B2 shows the general state of the art regarding circuit boards mounted in a chassis.

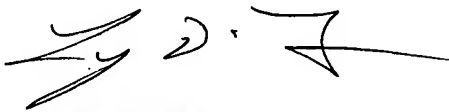
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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571)272-8392. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571)272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

IDW



LYNN FEILD
SUPERVISORY PATENT EXAMINER

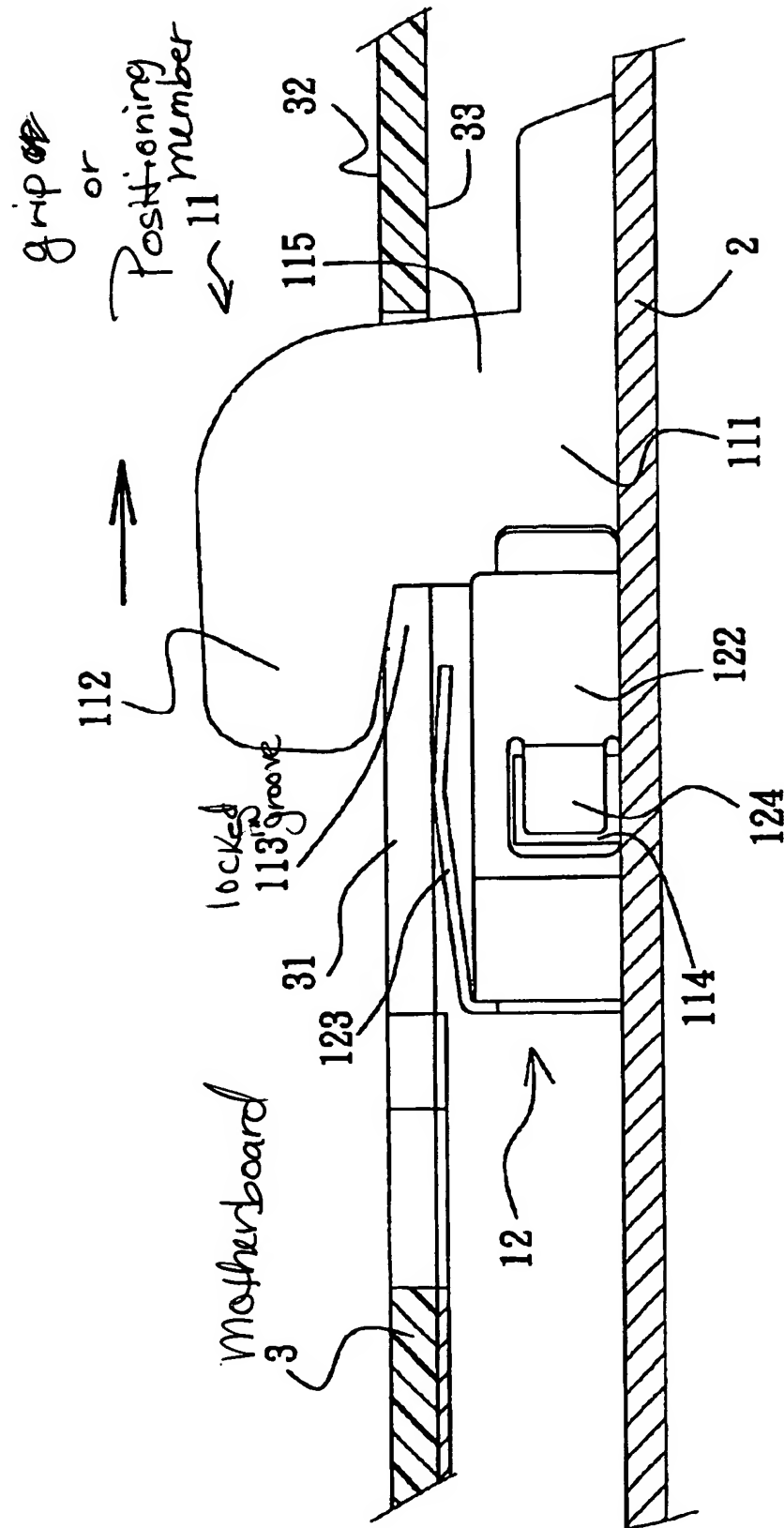
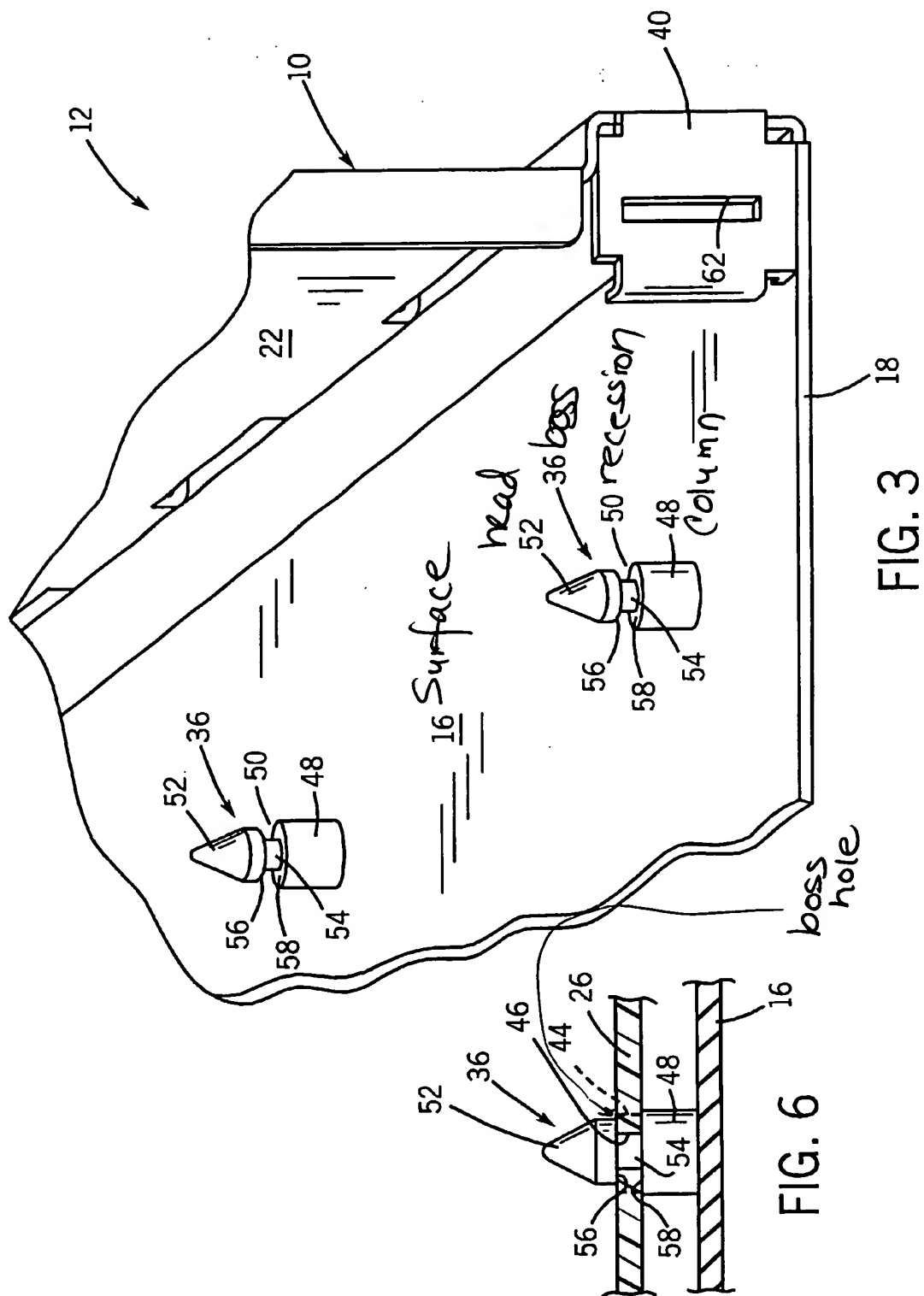
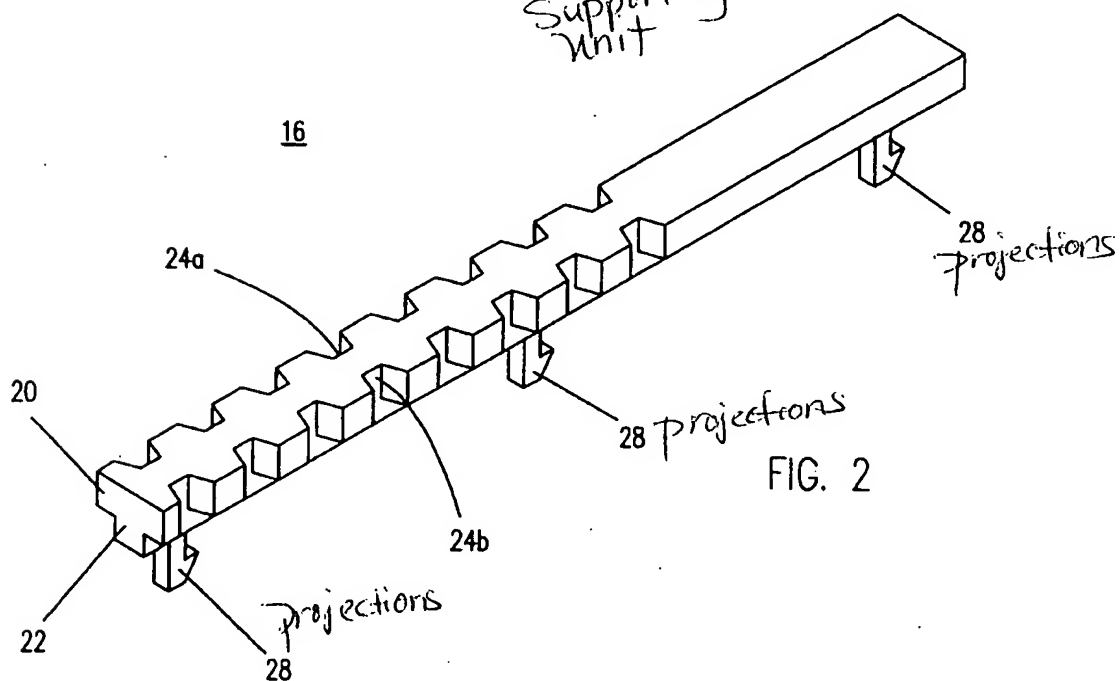
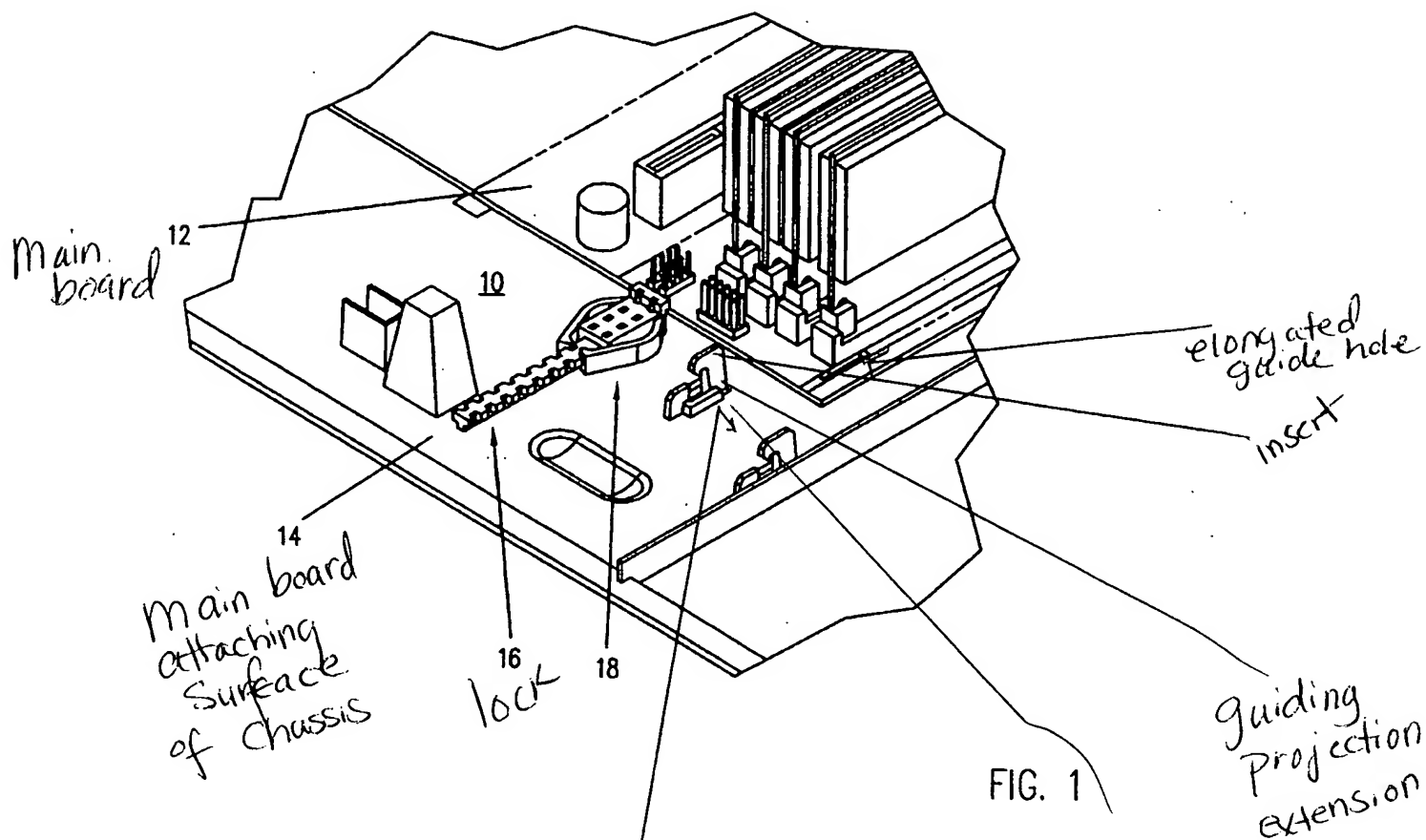
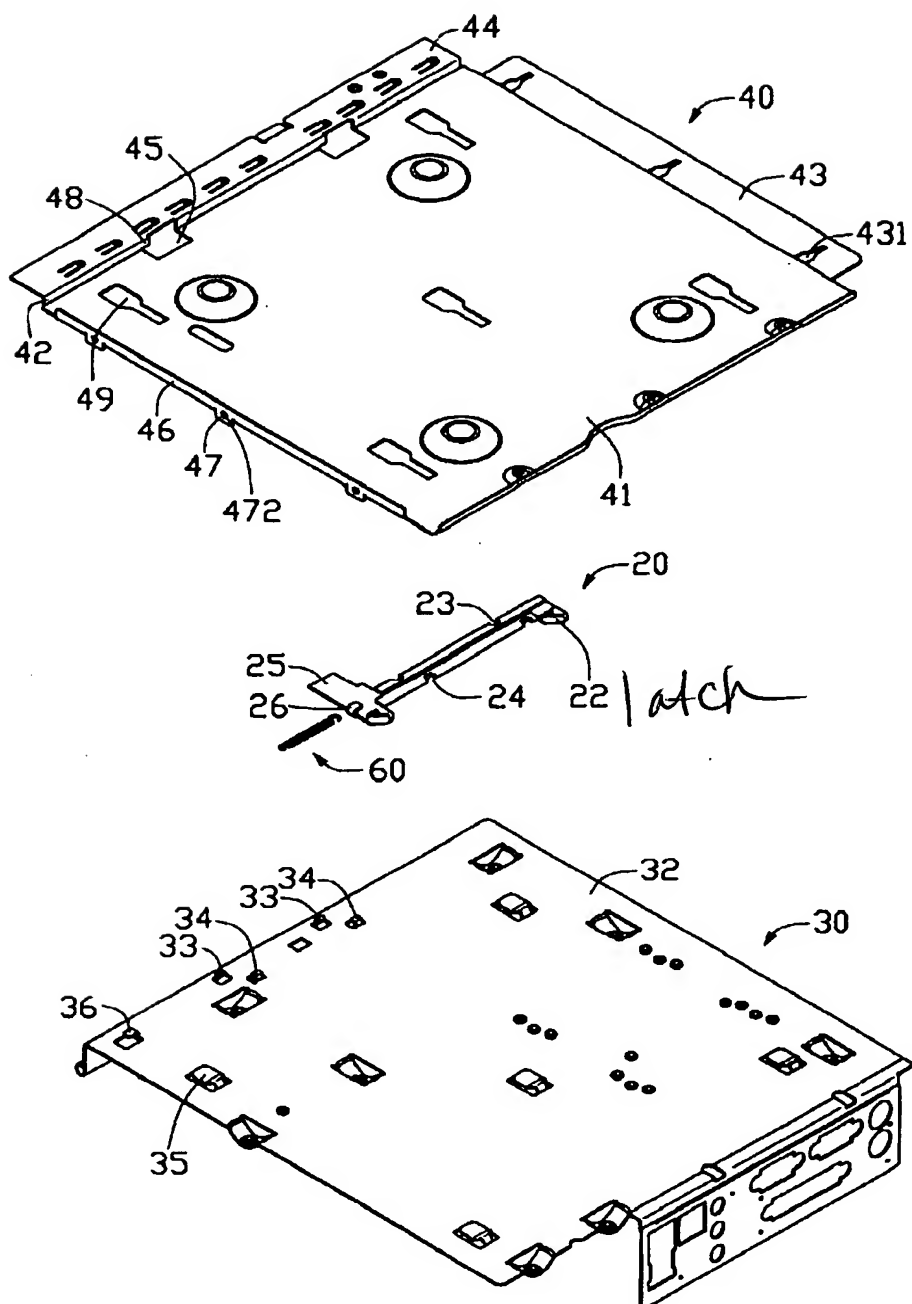


FIG. 7







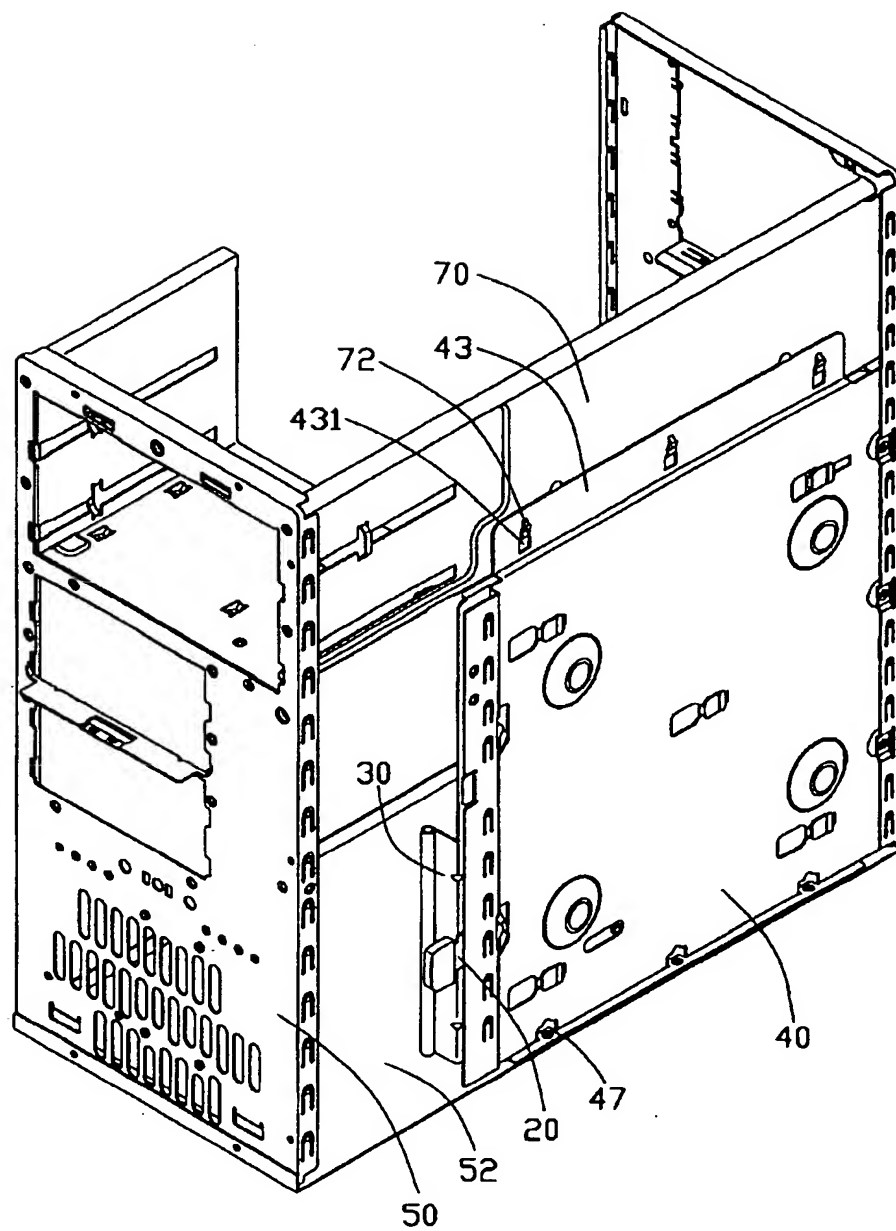


FIG. 6

